



STATE OF NEVADA

Department of Conservation & Natural Resources

DIVISION OF ENVIRONMENTAL PROTECTION

Brian Sandoval, Governor

Leo M. Drozdoff, P.E., Director

Colleen Cripps, Ph.D., Acting Administrator

FACT SHEET (Pursuant to NAC 445A.236)

Permittee Name: Weed Heights Development, LLC
2 Austin Drive
Yerington, NV 89447

Permit Number: NEV89026

Community Location: Weed Heights
2.5 miles west of Yerington
Lyon County, NV 89447
Latitude: 38° 59' 14" N, Longitude: 119° 12' 33" W
T13N, R25E, Section 17 MDB&M

Septic Tank Location: Latitude: 39° 00' 03" N, Longitude: 119° 12' 15" W
T13N, R25E, Section 08 MDB&M

Pond Location: Latitude: 39° 01' 09" N, Longitude: 119° 12' 33" W
T13N, R25E, Section 05 MDB&M

Discharge Outfalls: 001 - Ultrasonic flow meter
002 - Discharge to the evaporation/percolation ponds

General: Weed Heights was originally founded in 1952 as a community for employees of the Anaconda open-pit copper mine. Mining operations at the site ceased in 1978. The community of Weed Heights currently includes approximately 300 residential units, one coffee shop, one RV-Park, and several small businesses.

The wastewater treatment facility consists of a gravity collection system, three 38,000-gallon compartmented septic tanks operated in parallel, a solar powered ultrasonic flow meter, two clay-lined facultative ponds (#1 and #2), and two unlined evaporation/percolation ponds (#3 and #4). All ponds are just under one acre in area and operate at a design depth of 3 feet. Effluent flows through the ponds in series.

Following primary settling in the three septic tanks, effluent flows via gravity to the pond system for secondary (biological) treatment in ponds #1 and #2, followed by disposal in ponds #3 and #4. The evaporation/percolation ponds were built on top of materials previously used in the copper mining operations as tailings ponds. Due to the low permeability of the tailings pond material, evaporative processes provide the bulk of treated effluent removal.

Flow: The Permittee has requested a 30-day average and daily maximum flow rate of 0.063 million gallons per day (MGD). This is the previously permitted flow rate.

Site Groundwater: Depth to groundwater in the area of the treatment/disposal ponds is approximately 25 feet below ground surface. Groundwater directional flow is reported to be to the northwest. Groundwater is sampled quarterly at two down-gradient monitoring wells, one located approximately 150 feet north of facultative pond #2 (MW-1), and one located approximately 150 feet north of evaporation/percolation pond #3 (MW-2).

Receiving Water Characteristics: Area groundwater is non-potable. High total dissolved solids (TDS) concentrations are attributable to leaching from the abandoned unlined tailings ponds used during copper processing operations. Groundwater monitoring results from the previous four (4) quarters show the following characteristics.

MW-1

	TDS (mg/L)	Chlorides (mg/L)	Nitrate as N (mg/L)	Total Nitrogen as N (mg/L)	Depth to groundwater (feet)
3 rd Qtr, 2011	6,300	100	<0.5	<1.8	26
4 th Qtr, 2011	4,200	82	<0.5	<1.4	24
1 st Qtr, 2012	6,000	88	<0.5	<1.3	24
2 nd Qtr, 2012	5,700	85	<0.5	<1.5	24

MW-2

	TDS (mg/L)	Chlorides (mg/L)	Nitrate as N (mg/L)	Total Nitrogen as N (mg/L)	Depth to groundwater (feet)
3 rd Qtr, 2011	30,000	540	<2.5	<3.0	23
4 th Qtr, 2011	36,000	480	<2.5	<3.1	22
1 st Qtr, 2012	36,000	450	<2.5	<5.2	24
2 nd Qtr, 2012	40,000	500	<2.5	<5.3	22

TDS: Total dissolved Solids

N: Nitrogen

mg/L: Milligrams per Liter

Corrective Action Sites: This treatment system is located on the site of the former Anaconda copper mine. Groundwater at this location has been impacted by mining activities and is non-potable. The case officer for this site has indicated that no adverse effects are anticipated due to the renewal of this discharge permit.

Well Head and Drinking Water Supply Protection: The septic tanks and treatment/disposal ponds are not located within a Drinking Water Protection Area or within a Wellhead Protection Area established for any active well sources.

Effluent Characteristics: Discharge monitoring results from the previous four (4) quarters show the following characteristics.

Parameter	3rd Qtr, 2011	4 th Qtr, 2011	1st Qtr, 2012	2 nd Qtr, 2012	Permit Limit
Flow (MGD)	0.025	0.022	0.017	0.023	0.063
CBOD ₅ Influent (mg/L)	78	120	44	42	Monitor & Report
CBOD ₅ Effluent (mg/L)	37	56	26	31	45
TSS Influent (mg/L)	52	98	46	46	Monitor & Report
TSS Effluent (mg/L)	49	200	90	160	90
pH (S.U.)	8.2	8.3	8.3	8.1	6.0 - 9.0

Proposed Effluent Limitations: Discharge to the infiltration basins shall be limited and monitored according to the following table.

Sampling locations: 001 - Ultrasonic flow meter

002 - Discharge to the evaporation/percolation ponds

Table 1: General Discharge Limitations

Parameter		Units	Discharge Limitations		Monitoring Requirements		
			30 - Day Average	Daily Maximum	Sampling Locations	Monitoring Frequency	Sample Type
Scum Depth		feet/ inches	Monitor & Report		Septic Tanks #1, #2, #3	Bi-Annually (April/Oct)	Discrete
Sludge Depth		feet/ inches	Monitor & Report		Septic Tanks #1, #2, #3	Bi-Annually (April/Oct)	Discrete
Total Liquid Depth		feet/ inches	Monitor & Report		Septic Tanks #1, #2, #3	Bi-Annually (April/Oct)	Discrete
Effluent	Flow	MGD	0.063	0.063	001	Continuous	Meter
	CBOD ₅	mg/L	---	45	002	Monthly	Discrete
	TSS	mg/L	---	90	002	Monthly	Discrete
	Total Nitrogen	mg/L	Monitor & Report		002	Monthly	Discrete
	pH	S.U.	6.0 - 9.0		002	Monthly	Discrete

MGD: Million Gallons per Day

mg/L: Milligrams per Liter

S.U.: Standard Units

CBOD₅: 5-day Carbonaceous Biochemical Oxygen Demand

TSS: Total Suspended Solids

Groundwater Monitoring: Groundwater monitoring wells MW-1 and MW-2 shall be monitored in accordance with the following table.

Table 2: Monitoring Well Limitations and Requirements

Parameter	Permit Limit	Monitoring Frequency	Sample Type
Depth to Groundwater (feet)	Monitor & Report	Quarterly	Discrete
Total Nitrogen (mg/L)	10	Quarterly	Discrete
Chlorides (mg/L)	Monitor & Report	Quarterly	Discrete
Total Dissolved Solids (mg/L)	Monitor & Report	Quarterly	Discrete

Rationale for Permit Requirements: Monitoring is required to ensure that the treatment plant capacity is not exceeded, to assess the level of treatment being provided, and to monitor groundwater quality.

Schedule of Compliance: The Permittee shall implement and comply with the provisions of the schedule of compliance after approval by the Administrator, including in said implementation and compliance, any additions or modifications that the Administrator may make in approving the schedule of compliance:

- a. The Permittee shall achieve compliance with the effluent limitations upon issuance of the permit.
- b. By **MMM DD, 2012**, (60 days from permit issuance) the Permittee shall submit two (2) copies of an updated Operations and Maintenance (O&M) Manual for review and approval by the Division. The O&M Manual shall be compiled in accordance with appropriate sections of WTS-2, *Minimum Information Required for an Operation and Maintenance Manual for a Wastewater Treatment Plant*.

If no updates or revisions are required, the Permittee shall submit a letter by the above due date stating that there have been no changes to the previously approved O&M Manual.

Before implementing changes to an approved O&M Manual, the Permittee shall submit proposed changes to the Division for review and approval.

All schedule of compliance submittals and evidence of compliance documents shall be submitted to the Bureau of Water Pollution Control at the address listed below:

Nevada Division of Environmental Protection
Bureau of Water Pollution Control
901 S. Stewart Street, Suite 4001
Carson City, Nevada 89701

Proposed Determination: The Division has made the tentative determination to renew the proposed permit for a period of five (5) years.

Procedures for Public Comment: The Notice of the Division's intent to renew a groundwater discharge permit authorizing this facility to discharge secondary treated effluent to groundwater of the State of Nevada for a five-year period, subject to the conditions contained within the permit, is being sent to the **Reno Gazette-Journal** and the **Mason Valley News** for publication. The Notice is being mailed to interested persons on our mailing list. Anyone wishing to comment on the proposed permit can do so in writing for a period of thirty (30) days following the date of public notice in the newspaper. The comment period can be extended at the discretion of the Administrator. The deadline date and time by which all comments are to be submitted (via postmarked mail or time-stamped faxes, e-mails, or hand-delivered items) to the Division is **September 7, 2012, by 5:00 P.M.**

A public hearing on the proposed determination can be requested by the applicant, any affected State, any affected interstate agency, the Regional Administrator or any interested agency, person or group of persons. The request must be filed within the comment period and must indicate the interest of the person filing the request and the reasons why a hearing is warranted.

Any public hearing determined by the Administrator to be held must be conducted in the geographical area of the proposed discharge or any other area the Administrator determines to be appropriate. All public hearings must be conducted in accordance with NAC 445A.238.

The final determination of the Administrator may be appealed to the State Environmental Commission pursuant to NRS 445A.605.

Prepared by: Arthur Marr, P.E.
Date: June, 2012